

REMARKS

As a preliminary matter, it is respectfully submitted that the Examiner has failed to acknowledge claims 30-35 which were properly added in the amendment filed on December 18, 2003. It is respectfully requested that claims 30-35 be entered and considered as they were timely added in response to the NON-final Office Action dated September 18, 2003.

Claims 1-29 stand rejected under 35 U.S.C. § 103 as being unpatentable over Mian et al. in view of Kimura. Claims 1, 11 and 21 are independent. This rejection is respectfully traversed for the following reasons.

First, it is respectfully submitted that Kimura's passing reference to a spiral track does NOT necessitate that the track is a "continuous circular *data* band." It is quite possible that the spiral track is broken into different tracks so as to have a spiral shape *collectively* but the *data* thereon is non-continuous. Indeed, Figure 1 appears to illustrate such non-continuous data tracks. It is noted that "inherency may not be established by probabilities or possibilities", *Scaltech Inc. v. Retec/Tetra*, 178 F.3d 1378 (Fed. Cir. 1999). Accordingly, even assuming *arguendo* proper, the proposed combination does not necessitate the claimed invention.

Second, it is respectfully submitted that the proposed combination is improper. The Examiner asserts that "Mian repeatedly teaches using **conventional** CD technology ... [and] Kimura then teaches that the **conventional** CD format includes spiral tracks." These assertions are NOT disputed. The Examiner goes on to concludes that the proposed combination would have been obvious "because Mian teaches using **conventional** CD technology and **conventional** CD technology *is synonymous with spiral tracks* as taught by Kimura" (italics and underlining emphasis added). The emphasized portion of the Examiner's remarks is respectfully traversed.

Although conventional CD technology may include spiral tracks as taught by Kimura (noting that spiral tracks does not necessitate continuous data as discussed above), conventional CD technology may also include NON-continuous “sectored” tracks as disclosed by Virtanen. Indeed, Virtanen is more related to Mian than Kimura in that Virtanen is directed specifically to bio-compact disks (*see*, col. 4, line 19) whereas Kimura is directed to CD’s generally.

It appears that the Examiner is assuming that conventional CD technology embodies *only continuous spiral tracks*. However, as evidenced by Virtanen, such an assumption is incorrect. Without this assumption, the cited prior art does not suggest the desirability of using continuous-type CD technology specifically with assays. Mian merely suggests using CD technology generally, and CD technology includes non-continuous sectored tracks or spiral tracks evidenced by Virtanen and Kimura, respectively. Absent Applicant’s specification, there is no motivation from the prior art for modifying Mian to include the spiral tracks of Kimura because Kimura is related merely to CD technology generally and does not disclose any rationale for using spiral tracks versus other formats. Indeed, as evidenced by Virtanen, using CD technology with assays is not novel. However, only Applicant’s specification suggests the combination of using continuous *data* bands with assays. On the other hand, when using CD technology with assays, the prior art at best suggests using sectored CD technology.

Moreover, Mian’s reference to conventional CD format merely suggests “utilizing reflecting/non-reflecting flats and pits on a surface, using technology adapted from audio CD, CD-ROM ...” (*see* col. 30, lines 60-62) and that “[d]isks of the invention ... [have] optical pits in the manner of a conventional compact disk (CD)” (*see* col. 39, lines 34-37). That is, Mian merely suggests using the reflecting/non-reflecting flats and pits of the CD format, but does not

suggest using a *continuous data band* of those reflecting/non-reflecting flats and pits rather than sectorized “flats and pits.”

In summary, the fact that Mian discloses conventional CD technology does not necessitate that the CD technology uses continuous data bands. Kimura discloses only that a CD format *can be* formed as spiral tracks, which as discussed above, is not necessarily formatted as continuous data bands and nonetheless is not suggested to be used in combination with assays. The prior art at best suggests using sectorized CD technology in combination with assays as evidenced by Virtanen.

As previously mentioned, Applicant is not simply claiming novelty to a continuous data band by itself, but rather, Applicants have invented the novel combination whereby a continuous data band replaces the conventional sectorized CD of assay platforms (see Virtanen). As described on page 10, line 12 – page 11, line 10 of Applicant’s specification, examples of benefits and advantages derived from the claimed combination over the prior art include automation, increased speed, elimination of “dead space”, and seamless operation (user need not start/stop operation for respective assays, etc.). Only Applicant conceived and enabled a manner by which continuous data bands can be used in combination specifically with assay platforms.

It is submitted that patentable subject matter typically arises from using *known* elements in novel *combinations*. Accordingly, the Examiner's allegation that platform assays and continuous data bands on CD's are well-known *separately* is irrelevant to the determination of patentability for the *combination* thereof. At best, the Examiner has attempted to show only that the elements (i.e., assay platform and continuous data bands) of the claimed invention are *individually* known without providing a *prima facie* showing of obviousness that the *combination* of elements recited in the claims is known or suggested in the art. For all the

foregoing reasons, it is respectfully submitted that the proposed combination is based solely on improper hindsight reasoning, whereby the Examiner selected bits and pieces of the prior art and used only Applicant's specification as a guide to reconstruct the claimed invention. None of the cited prior art, alone or in combination, disclose or suggest the combination of continuous data bands with assay platforms.

Under Federal Circuit guidelines, a dependent claim is nonobvious if the independent claim upon which it depends is allowable because all the limitations of the independent claim are contained in the dependent claims, *Hartness International Inc. v. Simplimatic Engineering Co.*, 819F.2d at 1100, 1108 (Fed. Cir. 1987). Accordingly, as claims 1, 11 and 21 are patentable for the reasons set forth above, it is respectfully submitted that all claims dependent thereon are also patentable. In addition, it is respectfully submitted that the dependent claims are patentable based on their own merits by adding novel and non-obvious features to the combination.

For example, claims 31, 33 and 35 enable the present invention to take advantage of all the existing technology for CD type drives (see, e.g., page 5, lines 14-17 of Applicant's specification), so as to allow a speed-up in processing as well as an elimination of start/stop operations, thereby increasing operational flexibility.

Based on all the foregoing, it is submitted that claims 1-35 are patentable over the cited prior art. Accordingly, it is respectfully requested that the rejection under 35 U.S.C. § 103 be withdrawn.

CONCLUSION

Having fully and completely responded to the Office Action, Applicants submit that all of the claims are now in condition for allowance, an indication of which is respectfully solicited. If there are any outstanding issues that might be resolved by an interview or an Examiner's

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amendment, the Examiner is requested to call Applicants' attorney at the telephone number shown below.

To the extent necessary, a petition for an extension of time under 37 C.F.R. 1.136 is hereby made. Please charge any shortage in fees due in connection with the filing of this paper, including extension of time fees, to Deposit Account 500417 and please credit any excess fees to such deposit account.

Respectfully submitted,

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